Service Schematics



RM-89

Introduction

IMPORTANT:

This document is intended for use by authorized NOKIA service centers only.

“Service Schematics” was created with focus on customer care.
The purpose of this document is to provide further technical repair information for NOKIA mobile phones on Level 3/4 service activities.
The “Signal overview” page gives a good and fast overview about the most important signals and voltages on board.
Saving process time and improving the repair quality is the aim of this document.
It is to be used additionally to the service manual and other training or service information such as Service Bulletins.



All measurements were made using following equipment:

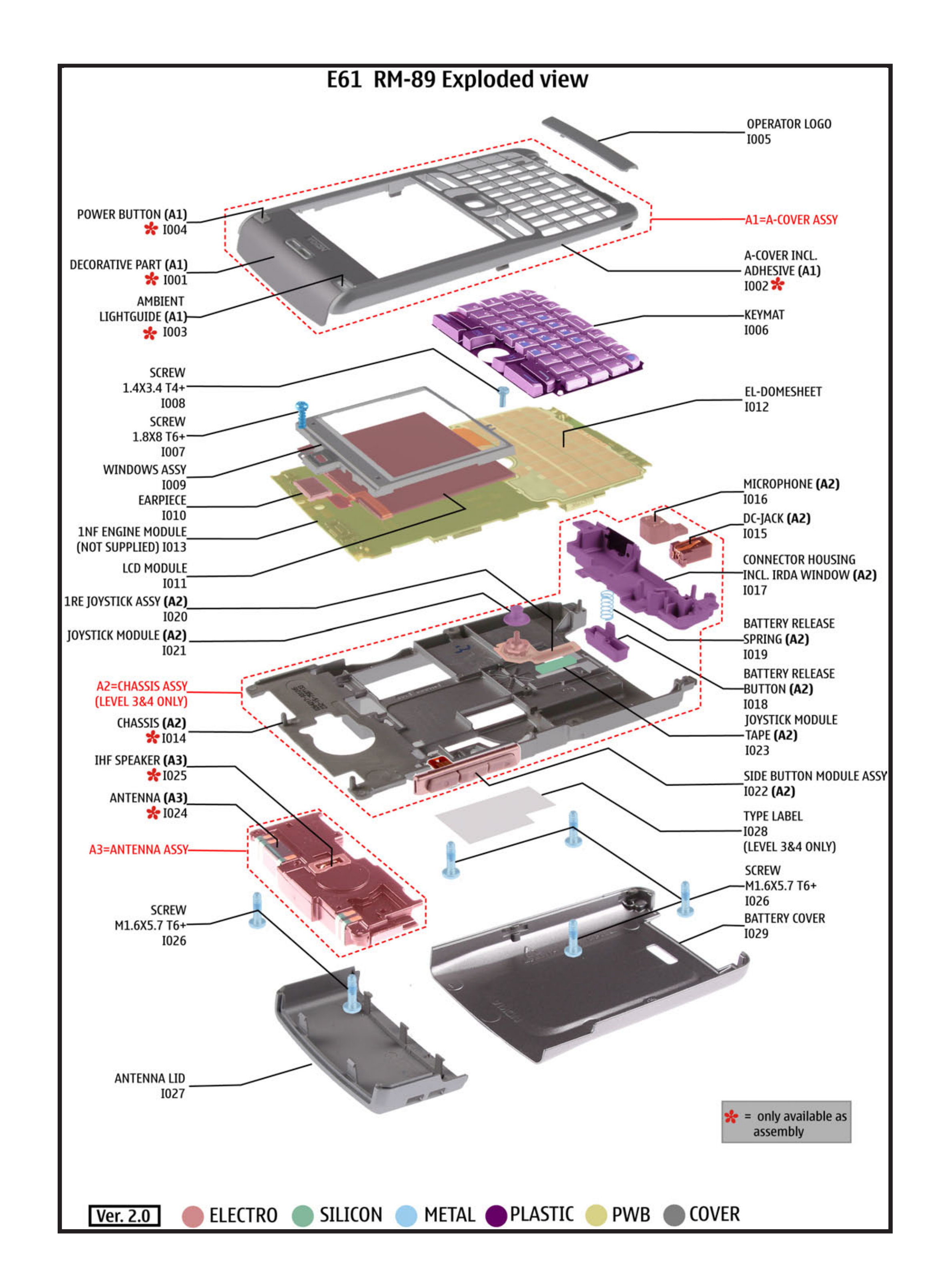
Nokia repair SW	: Phoenix version 2006.04.6.130
Oscilloscope	: Fluke PM 3380A/B
Spectrum Analyzer	: Advantest R3162 with an analog probe
RF-Generator / GSM Tester	: Rhode & Schwarz CMU 200
Multimeter	: Fluke 73 Series II

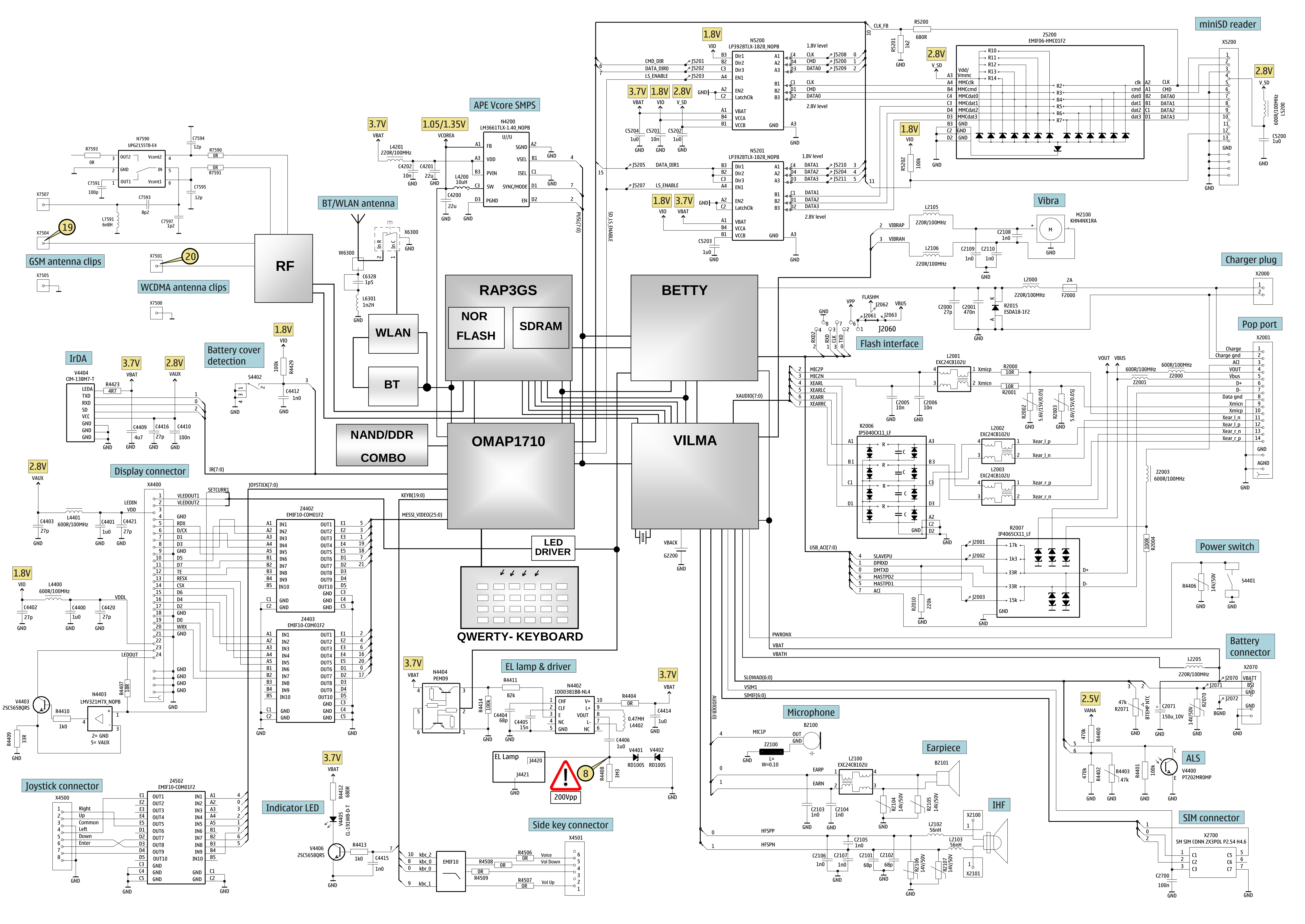
While every endeavour has been made to ensure the accuracy of this document, some errors may exist. If the reader finds any errors, NOKIA shall be notified in writing.

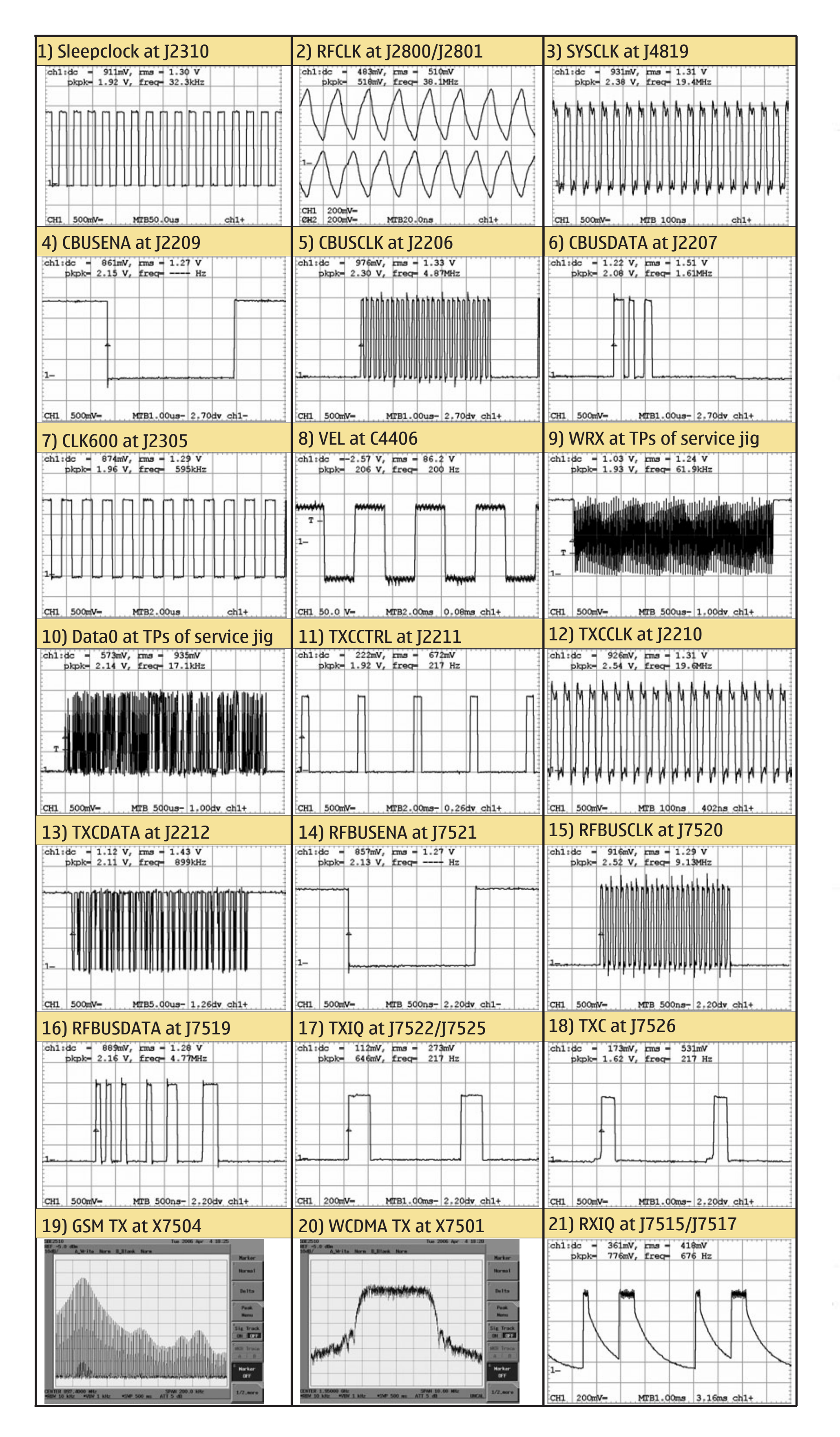
Please send E-Mail to: training.sace@nokia.com

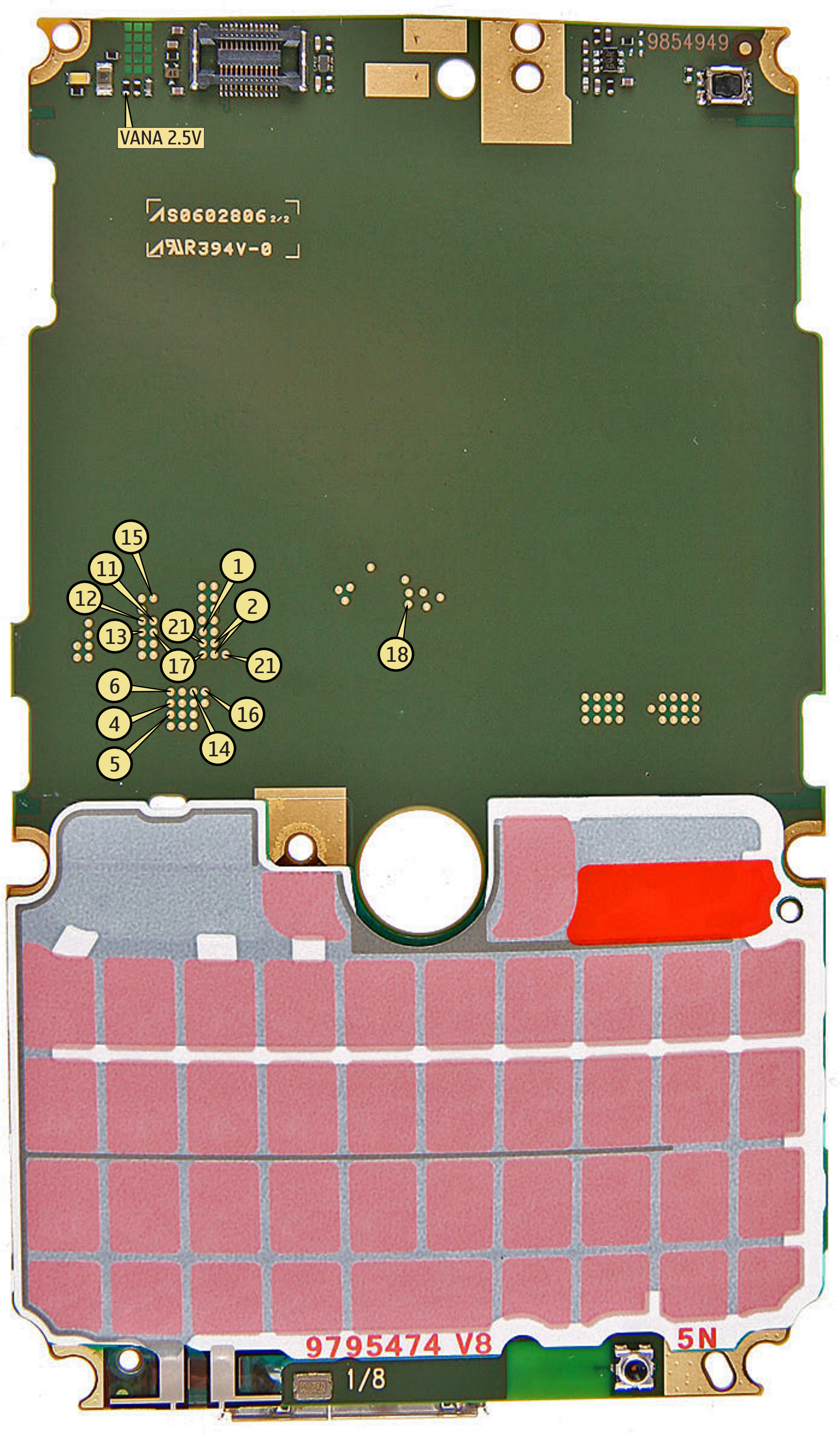
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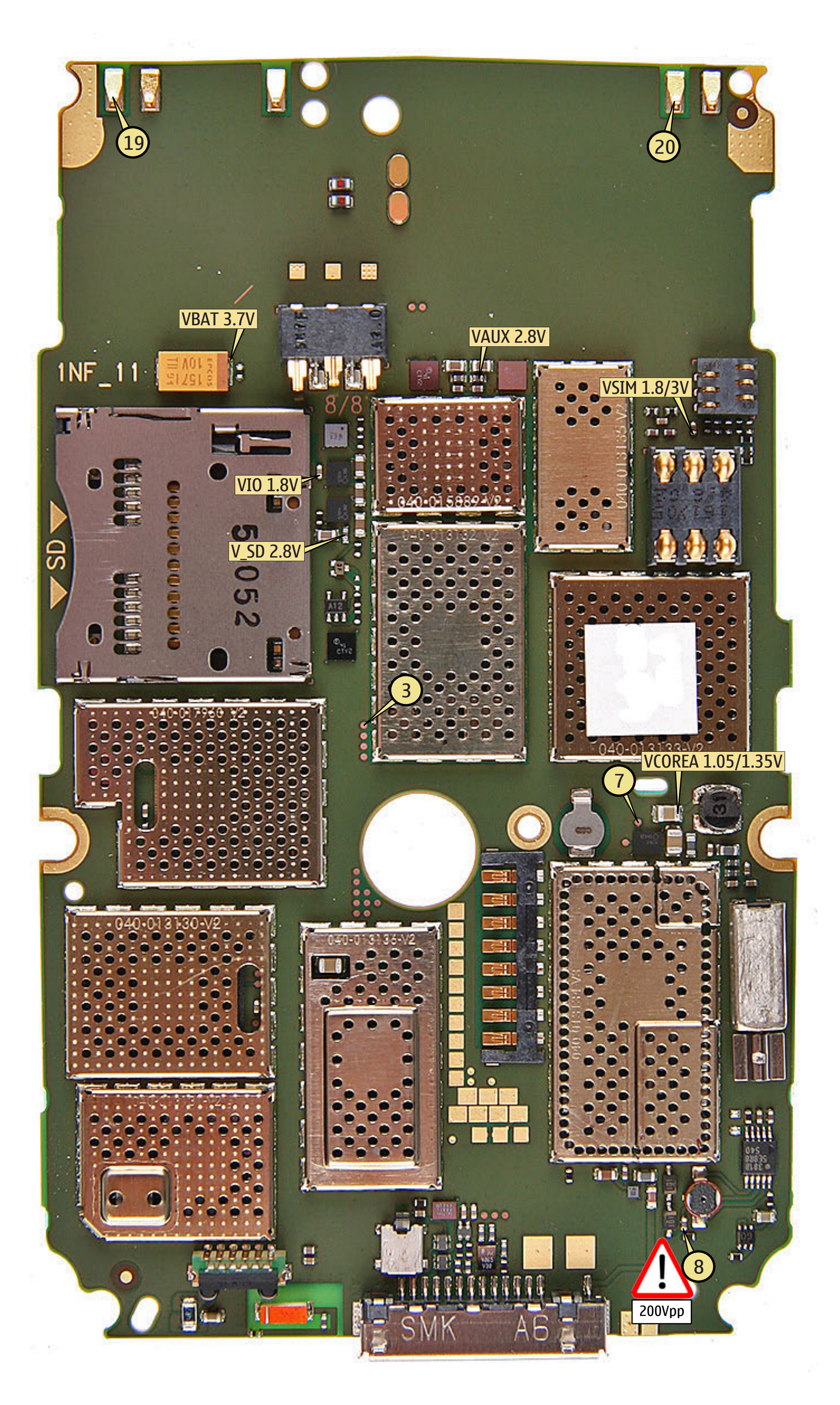
Exploded view and component disposal




miniSD reader
APE Vcore SMPS
BT/WLAN antenna
Vibra
Charger plug
GSM antenna clips
WCDMA antenna clips
RF
RAP3GS
NOR FLASH
SDRAM
BETTY
WLAN
BT
Flash interface
J2060
Pop port
IrDA
Battery cover detection
NAND/DDR COMBO
OMAP1710
VILMA
Display connector
LED DRIVER
QWERTY- KEYBOARD
Power switch
Battery connector
EL lamp & driver
EL Lamp
200Vpp
Microphone
Earpiece
ALS
Joystick connector
Indicator LED
Side key connector
IHF
SIM connector
1.8V
2.8V
3.7V
1.05/1.35V
2.5V


1) Sleepclock at J2310
2) RFCLK at J2800/J2801
3) SYSCLK at J4819
4) CBUSENA at J2209
5) CBUSCLK at J2206
6) CBUSDATA at J2207
7) CLK600 at J2305
8) VEL at C4406
9) WRX at TPs of service jig
10) Data0 at TPs of service jig
11) TXCCTRL at J2211
12) TXCCLK at J2210
13) TXCDATA at J2212
14) RFBUSENA at J7521
15) RFBUSCLK at J7520
16) RFBUSDATA at J7519
17) TXIQ at J7522/J7525
18) TXC at J7526
19) GSM TX at X7504
20) WCDMA TX at X7501
21) RXIQ at J7515/J7517


VANA 2.5V
9795474 V8


VBAT 3.7V
VAUX 2.8V
1NF_11
VSIM 1.8/3V
VIO 1.8V
V SD 2.8V
SD
VCOREA 1.05/1.35V
200Vpp
SMK A6

C		J4819	H12	R4401	B22
C2000	D4	J5200	J12	R4402	C22
C2001	D4	J5201	K12	R4403	C22
C2005	F3	J5202	J12	R4404	A3
C2006	G3	J5203	L12	R4406	L22
C2071	K18	J5204	K12	R4407	H13
C2103	F23	J5205	L12	R4409	H14
C2104	F22	J5207	L12	R4410	H15
C2105	C17	J5208	J12	R4411	B5
C2106	B9	J5209	J12	R4412	B22
C2107	B8	J5210	J12	R4413	C22
C2108	B9	J5211	J12	R4414	B2
C2109	B9	J7515	D13	R4423	K1
C2110	B9	J7517	D13	R4429	G3
C2700	C17	J7519	D12	R4506	B17
C4200	C10	J7520	C14	R4507	B17
C4201	C10	J7521	D12	R4508	B17
C4202	B9	J7522	D13	R4509	B16
C4400	G18	J7525	C13	R5200	H16
C4401	F18	J7526	G14	R5201	H17
C4402	G17	**L**		R5202	I15
C4403	F17	L2000	C4	R7590	J23
C4404	A5	L2001	G3	R7591	J22
C4405	A5	L2002	G2	R7593	K23
C4409	K1	L2003	G3	**S**	
C4410	I2	L2100	F22	S4401	L22
C4412	G3	L2101	C9	S4402	H3
C4414	A3	L2102	I21	**V**	
C4415	C23	L2103	I21	V4400	B22
C4420	C23	L2104	C8	V4401	C3
C4421	C22	L2105	B9	V4402	C4
C5200	I15	L2106	B9	V4403	I14
C5201	I16	L4200	B10	V4404	J2
C5202	H16	L4201	B9	V4405	B22
C5203	H15	L4400	G18	V4406	C22
C5204	H16	L4401	F18	**W**	
C7591	K22	L5200	I15	W6300	J1
C7593	J22	L7541	E17	**X**	
C7594	J23	L7591	J22	X2001	F1
C7595	J22	**M**		X2070	I18
F		M2100	B7	X2100	H21
F2000	C3	**N**		X2101	H21
G		N4200	C10	X2700	C15
G2200	E10	N4402	A4	X4400	E22
J		N4403	I14	X4500	F8
J2001	F3	N4404	B3	X4501	B17
J2002	F3	N5200	I16	X5200	K15
J2003	F3	N5201	I15	X6300	K2
J2060	F5	N7590	J22	X7500	B23
J2061	F5	**R**		X7501	C23
J2062	F5	R2000	G3	X7504	M23
J2063	F5	R2001	F3	X7505	L23
J2070	I19	R2002	G2	X7507	J23
J2071	I19	R2003	F2	**Z**	
J2072	H19	R2004	E4	Z2000	F3
J2206	C12	R2006	G3	Z2001	F3
J2207	C12	R2007	F2	Z2003	F3
J2209	C12	R2010	F2	Z4402	F18
J2210	C13	R2015	D4	Z4403	G18
J2211	C13	R2070	J18	Z5200	I17
J2212	C13	R2104	F22		
J2305	D10	R2105	F23		
J2310	D13	R2106	C17		
J2800	D13	R2107	C17		
J2801	D13	R4400	C22		

